Contents, Volume 28

Number 1 **February 1994**

In This Issue 1

WARREN POWELL AND LINOS FRANTZESKAKIS—Restricted Recourse Strategies for Dynamic Networks with Random Arc Capacities 3

ROBERT DIAL—Minimizing Trailer-on-Flat-Car Costs: A Network Optimization Model 24

NEJIB BEN-KHEDHER AND CANDACE YANO—The Multi-Item Joint Replenishment Problem with Transportation and Container Effects 37

SAMER MADANAT AND MOSHE BEN-AKIVA—Optimal Inspection and Repair Policies for Infrastructure Facilities 55

Technical Notes

A. DEPALMA, Q. LIU AND J.-F. THISSE—Optimal Locations on a Line with Random Utilities 63

Y. P. ANEJA AND M. PARLAR—Algorithms for Weber Facility Location in the Presence of Forbidden Regions and/or Barriers to Travel 70

C. M. KLEIN AND R. K. KINCAID—The Discrete Anti-P-Center Problem 77

Bibliographic Section 80

Special Section

Abstracts for the 1993 Transportation Science Section Dissertation Prize Competition 82

Special Section

Referees for 1993 90

Number 2 **May 1994**

Focus Issue

LOCATION MODELS AND ALGORITHMS

In This Issue 93

GILBERT LAPORTE, FRANÇOIS V. LOUVEAUX AND LUC VAN HAMME—Exact Solution of a Stochastic Location Problem by an Integer L-Shaped Algorithm 95

DILIP CHHAJED AND TIMOTHY J. LOWE—Solving Structured Multifacility Location Problems Efficiently 104

Y. XU, RICHARD L. FRANCIS AND TIMOTHY J. LOWE—The Multimedian Location Problem on a Network: Exploiting Block Structure 116

MARGARET L. BRANDEAU AND SAMUEL S. CHIU—Location of Competing Facilities in a User-Optimizing Environment with Market Externalities 125

ROLAND DURIER AND CHRISTIAN MICHELOT—On the Set of Optimal Points to the Weber Problem: Further Results 141

MAMNOON JAMIL, RAJAN BATTA AND DAVID M. MALON—The Traveling Repairperson Home Base Location Problem 150

Technical Notes

IGOR AVERBAKH AND ODED BERMAN—Routing and Location-Routing p-Delivery Men Problems on a Path 162

MORDECHAI JAEGER AND JEFF GOLDBERG—A Polynomial Algorithm for the Equal Capacity p-Center Problem on Trees 167

Number 3 **August 1994**

MARTIN J. BECKMANN, Recipient of the Robert Herman Lifetime Achievement Award in Transportation Science: Award Citation 177

In This Issue 180

ENRIQUE FERNANDEZ, JOAQUIN DE CEA, MICHAEL FLORIAN AND ENRIQUE CABRERA—Network Equilibrium Models with Combined Modes 182

JIA HAO WU, MICHAEL FLORIAN AND PATRICE MARCOTTE—Transit Equilibrium Assignment: A Model and Solution Algorithms 193

BYUNG-WOOK WIE, ROGER L. TOBIN AND TERRY L. FRIESZ—The Augmented Lagrangian Method for Solving Dynamic Network Traffic Assignment Models in Discrete Time 204

DAVID BERNSTEIN AND TONY E. SMITH—Equilibria for Networks with Lower Semicontinuous Costs: With an Application to Congestion Pricing 221

W. J. HURLEY AND E. R. PETERSEN—Nonlinear Tariffs and Freight Network Equilibrium 236

SÜLEYMAN ÖZEKICI AND SELIM ŞENGÖR—On a Rail Transportation Model with Scheduled Services 246

JUDITH M. FARVOLDEN AND WARREN B. POWELL—Subgradient Methods for the Service Network Design Problem 256

Number 4 **November 1994**

In This Issue 273

PETER B. M. VRANAS, DIMITRIS BERTSIMAS AND AMEDEO R. ODONI—Dynamic Ground-Holding Policies for a Network of Airports 275

MAYIZ B. HABBAL, HARIS N. KOUTSOPOULOS AND STEVEN R. LERMAN—A Decomposition Algorithm for the All-Pairs Shortest Path Problem on Massively Parallel Computer Architectures 292

RAJ A. SIVAKUMAR AND RAJAN BATTA—The Variance-Constrained Shortest Path Problem 309

JOHN CURRENT, HASAN PIRKUL AND ERIK ROLLAND—Efficient Algorithms for Solving the Shortest Covering Path Problem 317

JOHN CURRENT, AKIO IMAI AND HASAN PIRKUL—The Capacitated Carrier Transportation Problem: An Application of the Axial Three-Dimensional Transportation Problem with Heuristic 328

M. ERIC JOHNSON AND MARGARET L. BRANDEAU—An Analytic Model for Design and Analysis of Single-Vehicle Asynchronous Material Handling Systems 337

Bibliographic Section 354

Index, Volume 28

Author 362

Subject 364